AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-002

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-002.01
AO-51 Power Management Enabled as Satellite Enters Eclipses

AMSAT News Service Bulletin 002.01
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.01

The AO-51 Control Team reported they enabled the power management function of the satellite in anticipation of eclipses expected to begin before the end of December, 2010.

Command Team member Mark Hammond, N8MH wrote, "You might see the transmitter power levels go UP and DOWN a bit as the battery voltage changes. We'll make some adjustments and tweaks to keep it from going UP and DOWN too often--but it's the way it's gonna work. In a few weeks we expect transmitter(s) to be OFF while in eclipse and ON when in the sun."

AO-51 users should expect adjustments and various power management schemes from now until the end of February when we'll again see full sunlight for a brief period. On December 28 the Command Team shut down the digital transmitter TXA (435.150 MHz). This is due to less sun (we are on the edge of eclipse). TXA off for the most part, except to collect telemetry. The 435.300 MHz repeater will be kept running as much as possible.

The command team could really use your help. If you work AO-51 (or hear it) and there isn't a recent entry, please make a report entry at: http://oscar.dcarr.org/ so we know all is well.

Things are touch-and-go now that we are experiencing eclipses, and reports on the OSCAR Status Page that the bird is up and functional

are extremely helpful.

The Command Team notes that expected behavior is for the transmitter to go OFF during eclipse, but eclipses are only a couple minutes or less at the moment. The regular voice repeater is planned to be operation for the month of January, 2011 as the Command Team manages the changing eclipse periods. AO-51 will be seeing longer eclipses and there will be times when the bird goes off for several minutes at a time--including over populated areas. It seems like it's occurring in the early morning time frame.

Keep up to date with the latest Command Team and Operations Group AO-51 News at: http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks Mark, N8MH for the above information]

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SB SAT @ AMSAT $ANS-002.02
Latest Winners Announced in AMSAT Fundraising Drive

AMSAT News Service Bulletin 002.02
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.02

AMSAT's fundraising campaign via PayPal Widget continues to produce results. AMSAT VP Operations Drew Glasbrenner, KO4MA announced last week, "Beginning with the $1250 mark, we will be randomly picking a donor from every $250 increment to receive an item from the AMSAT store."

The drawing winners for the next three $250 increments have been announced:
$1000-$1250 Richard Lewis
$1250-$1500 Eric Schecter
$1500-$1750 Stephen Silverman and Charles Suprin

In conclusion, Drew writes, "Thanks again, and if you'd like to donate to the campaign or share the widget to your own website, please visit http://www.amsat.org. The widget is on the front page below the ARISSat-1
news, and you can click on "Give" to donate, or "add to site" to receive

the HTML code, or "supporters" to scroll through the statistics. I hope to soon see more familiar names scrolling across the widget soon, showing
your support for AMSAT's next two satellites."

Donations, memberships, and store purchases may also be made through the

AMSAT store on the website, or by calling Martha at 1 888 322 6728.

[ANS thanks Drew KO4MA for the above information]

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SB SAT @ AMSAT $ANS-002.03
Ham Radio University Program Includes Satellite Operations

AMSAT News Service Bulletin 002.03

>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.03

On January 9, 2011, AMSAT Area Coordinator Pete, WB2OQQ will be presenting "Satellite Operations with an HT" at the Ham Radio University 2011 event at Briarcliffe College, Bethpage, NY. Full information can be found on-line at: http://www.hamradiouniversity.org.

Pete's presentation is scheduled at 11:00 - 11:50AM in Room D. He will be using the special event call sign W2V for the afternoon satellite passes. Someone attending his forum will be leaving with an ELK Antenna,

graciously donated by the company for the event.

[ANS thanks Pete, WB2OQQ for the above information]

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SB SAT @ AMSAT $ANS-002.04
Chichijima Island Activation Includes Satellites

AMSAT News Service Bulletin 002.04
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.04

Makoto, JI5RPT (JD1BLY) and Harry, JG7PSJ (JD1BMH) are again active from Chichijima Island (IOTA AS-031) between 24 December 2010 and 8 January 2011.

They are active on all bands 160-10m, with focus on the lower bands, using CW, SSB, Digital and the satellites.

JD1BLY will be active between 24 December 2010 and 3 January 2011, while JD1BMH will be active between 30 December and 8 January 2011.

QSL via the bureau to the JD1 callsigns or direct to their home callsigns.

[ANS thanks the SouthGate ARC News for the above information]

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SB SAT @ AMSAT $ANS-002.05
Satellite Shorts From All Over

AMSAT News Service Bulletin 002.05
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
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+ The next Hudson Valley Satcom Group Net is Thursday January 6 at 8:00 PM EST (UTC - 5) on the MBARC 146.970 MHz repeater (-600; & PL 100). The EchoLink node is N2EYH-L. Latest information can be found on-line at: http://www.hhvsatcom.org. (Stu, WA2BSS)

+ University of Texas FASTRAC updated TLEs are available at: http://tinyurl.com/25sykwb (UTexas.edu)

+ NASA has posted a video: Satellite Views of the "Christmas Blizzard"
  on-line at: http://tinyurl.com/399x2r5

+ WB2SIH (grid FN31DD) reported a successful CW contact via AO-7 with
  RW3XL (grid KO84DM) at a distance of 7,480 KM.

+ News received from Derrick, GM0FMW reports good transatlantic sat-
  ellite contacts via HO-68 with Paul N2BX, Nick KB1RVT, Paul KB1QYS,
  John K8YSE, Thomas KL0BK,and Ricky VE4AMU. Derrick wishes a Happy
  New Year to all AMSAT members.

+ Clint, K6LCS published an updated copy of the "How to Work Ham Satel-
  lites With Your HT" tutorial. This is posted on-line at:
  http://www.work-sat.com

+ Online Registration is now available to register to the 1st IAA
  Conference on University Satellites Missions and Cubesat Conference
  in Rome. See http://www.gaussteam.com/ for the latest information.

+ On the morning of Tuesday, January 4, 2011, an eclipse of the Sun
  will be widely visible across Europe and as far east as India. The
  eclipse won't be visible in North and South America. UniverseToday.com

  has the full story at: http://tinyurl.com/388sb2r

+ More NASA Videos! See http://tinyurl.com/2847r6h for Seasons Greetings

  and a Look Back at 2010 from NASA. Watch the video at:
  http://www.youtube.com/watch?vHhjjKUS7G8 for the "Best of the Best"
  Launches", powered by Music with imagery rarely seen by the public
  that highlights three space shuttle launches.

+ Henk, PA3GUO has posted a video featuring his first test at satellite
  reception with a FUNcube dongle SDR receiver straight out of the box:
  http://www.youtube.com/watch?v=ZGlqKPPQo (HD video: set to 720p and
  Fullscreen). Henk says his results are amazing with similar perform-
  ance with a Kenwood TS2000x. Satellites in the video include HO68 CW,
  HO68 FM, AO51 FM, VO52 SSB, and OOREOS 1k2 AX25 (packet radio with
  MixW).

+ The software to auto-decode the University of Michigan RAX beacons
  can be found on the website at: http://rax.engin.umich.edu.
  Mike Rupprecht, DK3WN has his own version at
  http://www.dk3wn.info/software.shtml.
  (via Matt Bennett, KF6RTB, RAX Project Manager

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-002.06
Rogue GEO Satellite Back Under Control

AMSAT News Service Bulletin 002.06
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.06

UniverseToday.com reported that the geostationary satellite that became a "zombie" earlier this year and stopped communicating with ground controllers has now finally been reset and is under control.

The Galaxy 15 communications satellite had its "brains fried" by a solar flare and went rogue in early May. Although it was still functional, its navigation and communications systems would not accept commands, and the satellite drifted out of its orbit. On December 23, 2010, engineers at Intelsat were finally able to command the unit to reset after a battery drained. Shortly thereafter Galaxy 15 began accepting commands, and then was put into safe mode. "We are pleased to report it no longer poses any threat of satellite interference to either neighboring satellites or customer services," IntelSat said on their website.

While there was little chance that Galaxy 15 would crash into another satellite, it caused some problems when it entered an orbital space occupied by other satellites and "stole" their signal, thereby interrupting other vendor's services to customers on Earth.

Engineers will now do some diagnostic tests and load updated commanding software to the satellite. The satellite is currently pointed towards the Sun, allowing the spacecraft's batteries to become fully charged and the satellite thermally balanced.

Once initial diagnostic testing has been completed, IntelSat will attempt to stop the drift of the satellite. This phase could take as long as two weeks to complete.

Intelsat is hoping full functionality of Galaxy 15 can be regained and they hope to relocate the satellite to an orbital location where we they can assess the viability of the payload, and conduct extensive in-orbit testing to determine the functionality of every aspect of the spacecraft.

Source: http://tinyurl.com/2amezh4

[ANS thanks UniverseToday.com for the above information

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SB SAT @ AMSAT $ANS-002.07
Russian Engineers Plan to Extend Internet to Space

AMSAT News Service Bulletin 002.07
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
BID: $ANS-002.07

Russian engineers have started drawing up a new 'Kosmonet' project, and its implementation will provide an opportunity for the Runet users to enter the 'Space' Internet.

The developers say that rapid access to the Internet is only part of the task set before the "Kosmonet". They give priority to guaranteeing communications between spacecraft and establishing control over flying objects from any point on the Earth and stable communications with remote regions of Russia.

"Such a communication system is crucial for the north and in the Polar

Regions because satellites in the geostationary orbit cannot provide access to these regions. In fact, to built transmitter units there or lay optic fibre cables to these regions is either economically inexpedient or technically impossible, says deputy head of the Russian space agency,&#65533; Vitaly Davydov.

&#65533;The new project is an upgraded version of the present system known as &#65533;Gonets&#65533; (Messenger). &#65533;It&#65533;s crucial for Russia to have the possi-
bility of ensuring communication with any of its satellites at any time and linking them with the mission control centres. In short, we are &#65533;lifting&#65533; the Internet into orbit. At present, there is no such a
system, and we hope to enter into this market first,&#65533; Vitaly Davydov said.

&#65533;According to the president of the &#65533;Gonets&#65533; Satellite System&#65533; Company,
Alexander Galkevich, it has been planned to place a group of 48 satellites into orbit that will cover the entire planet. In fact, 18 satellites are sufficient for Russia. This will make it possible to provide services that are highly sought on the market,&#65533; says Mr Galkevich.

&#65533;Among the services demanded by consumers are voice communications, broadband broadcasting, video conferencing and transmitting short messages. Such services are not provided comprehensively by any existing system in the world,&#65533; Alexander Galkevich said.

The developers emphasize that the &#65533;Kosmonet&#65533; does not depend on ground
infrastructure. Communications will be maintained with the assistance of terminals and basic stations through satellites. Consequently, emergency situations such as earthquakes or other calamities cannot interrupt communications. The ground transmitting and receiving stations usually go out of order in such incidents. The &#65533;Kosmonet&#65533; will

help to control the movements of dangerous cargo shipments and link with ships at any point on a sea or an ocean.

According to preliminary estimates, about US$20 billion will be needed to implement the project. This will pay off in ten years. The preparations for launching the work have to be completed in three years. It will take five years to create the full-fledged space group.

Source: SouthGate ARC site: http://tinyurl.com/37rnkn8

[ANS thanks SouthGate ARC site for the above information]

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SB SAT @ AMSAT $ANS-002.08
ARISS Status Report for the Week of December 27, 2010

AMSAT News Service Bulletin 002.08
>From AMSAT HQ SILVER SPRING, MD.
January 2, 2011
To All RADIO AMATEURS
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1. ISS Astronaut Sends Birthday Greetings to ARISS

On December 21, ARISS celebrated its tenth anniversary of the first

school contact. The first contact was made with Burbank School in Illinois on December 21, 2000. Since that time, ARISS has performed 565 successful contacts with school children around the world. ESA astronaut P□olo Nespoli, IZ0JPA, from onboard the ISS, wished ARISS a Happy Birthday. His photo presenting his birthday wishes is available for download from: http://www.ariss-eu.org/Nespoli_10ARISS.jpg

ARRL also covered this story. See: http://tinyurl.com/38a4eog

2. ARISS International Team Meeting Held

The monthly ARISS International Team meeting was held on Tuesday, December 21. Topics of discussion included ARISS' tenth anniversary, the upcoming face to face meeting and a status on the Columbus module equipment as well as ARISSat-1. To view the minutes, see: https://www.rac.ca/ariss/arisstel2010-12-21.htm

3. AMSAT Article on 10th Anniversary of ARISS

The AMSAT (Radio Amateur Satellite Corporation) News Service bulletin (ANS-360) posted an article on the tenth anniversary of ARISS. See: http://www.amsat.org/amsat/archive/amsat-bb/48hour/msg82907.html

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And with that, take a moment to ponder what did Godzilla say after eating a four cylinder Datsun? "Gosh, I could have had a V-8!"

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM